



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/565,081

08/30/2006

Thomas Huber

59482.21840

3688

30734 7590 12/03/2010
BAKER & HOSTETLER LLP
WASHINGTON SQUARE, SUITE 1100
1050 CONNECTICUT AVE. N.W.
WASHINGTON, DC 20036-5304

EXAMINER

O'HARA, BRIAN M

ART UNIT

PAPER NUMBER

3644

NOTIFICATION DATE

DELIVERY MODE

12/03/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@bakerlaw.com

Office Action Summary	Application No. 10/565,081	Applicant(s) HUBER ET AL.	
	Examiner Brian M. O'Hara	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-16 and 19-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-16 and 19-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/05/2010 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims **1, 3-16, 19-22, 24, and 25** rejected under 35 U.S.C. 102(b) as being anticipated by Bergholz (**US Patent 4,479,621 A**).

4. Regarding **Claim 1**, Bergholz discloses a cargo deck (see Fig. 2), comprising: a plurality of flat floor elements (13), a plurality of functional units (35), a plurality of profile elements (33) mounted in the long direction of the aircraft and adapted to accommodate functional units at least sections of said flat floor elements (13) being fixedly connected to said profile elements (33) to form deck sections (See 33 connected to 13 in Fig. 4a), the deck sections having two opposing outer edges each adjacent to an outer skin of the aircraft, each outer edge being directly and fixedly connected to a respective

Art Unit: 3644

intermediate element (24+46 +20; or 17+43+21) and said respective intermediate element being directly and fixedly connected to the outer skin (16), each intermediate element being planar (24 has planar top and bottom, See cross section in Fig. 4; also 43 and 46 are planar) and having a long axis (axis of 43 and 46 are along longitudinal axis of aircraft) parallel to the long axis of said aircraft the deck sections being each adapted such that longitudinal forces imposed on said deck section and oriented in a direction parallel to the long axis of said aircraft to act as shear forces in a surface direction of the cargo deck (inherently these forces act as shear forces) and these shear forces are transmitted directly to the outer edges of said deck section and dissipated from said outer edges to the outer skin (16) of the aircraft via the intermediate elements (24+46 +20; or 17+43+21), wherein said cargo deck is subdivided (as indicated by gap 40) in the direction of its long axis into a plurality of said deck sections, which are decoupled from one another with respect to said longitudinal forces.

5. Regarding independent **claim 24**, Bergholz further discloses a plurality of substantially planar floor elements (13), each having a first and a second, opposite side (a left and right side); a plurality of elongate profile elements (31 and 33), each having a first and second longitudinal side (31 has a left and right side as shown in Fig. 4b) and a plurality of functional units (34 and 35 sit within 31 and 33 respectively) for moving and securing a load to said cargo deck (via slot and holes shown from above in Fig. 8);

and a plurality of transverse support elements (39 and 42), wherein

each of said transverse support elements includes opposite outer ends (at 19 and 46) fixedly connected to an outer skin of the aircraft, each outer end including a

Art Unit: 3644

planar member (24) having a long axis parallel to a long axis of the aircraft, the cargo deck module being connected to the transverse support elements at the outer ends, wherein longitudinal forces imposed on the cargo deck module and oriented in a direction parallel to the long axis of the aircraft are transmitted as shear forces (shear forces act between 46 and 24 as shown in Fig. 8) in a surface direction of the cargo deck module and these shear forces are transmitted directly to the outer ends and dissipated from the outer ends to the outer skin (16) via the respective planar members (24), wherein the cargo deck module is decoupled (by gap 40) from another cargo deck modules with respect to said longitudinal forces,

wherein said first side of each of said plurality of substantially planar floor elements (13) is adjacent and connected (13 is connected on either side of 31 at the top of Fig. 4b) to said first longitudinal side of a respective one of said plurality of elongate profile elements (31 and 32), said second side of each of said plurality of substantially planar floor elements is adjacent and connected to said second longitudinal side of a respective other one of said plurality of elongate profile elements (13 is connected on both sides of 31 in Fig. 4b),

each of said plurality of elongate profile elements (31 and 32) is connected (at least at 14, See Fig 4b and Column 5, Lines 52-53) to each of said plurality of transverse support elements (42 and 39) and extends in a direction substantially perpendicular to a longitudinal direction of each of said plurality of elongate profile elements, and

at least one of said plurality of transverse support elements comprises, on at least one longitudinal end thereof, a downward-facing bearing surface (bottom of 30 and 47 in fork 29, and bottom of 36 on 37) that transmits a downward force imposed on said deck section to said aircraft.

6. Regarding independent **claims 16 and 20**, the planar member, equated to elements 24+46 +20; or 17+43+21 above, is also mapped to the plurality of intermediate elements of Claims 16 and 20.

7. Further regarding **claim 20**, Bergholz discloses wherein each of said plurality of cargo deck modules extends across an entire width of said cargo deck (as shown in Fig. 3, the modules are the cargo deck so they inherently extend across the width of the cargo deck) and a first one of said plurality of cargo deck modules (12) is mounted in aircraft adjacent a second other of said plurality of cargo deck modules such that play (via 40) in a longitudinal direction of said aircraft is provided between said first and second cargo deck modules (See Fig. 6).

8. Further regarding independent **claim 16** and dependant **claims 21 and 25**, Bergholz discloses wherein the plurality of transverse support elements (42 and 39), each having a substantially planar upper surface (top portion that abuts 13, See Fig. 6) that extends across substantially an entire width of said cargo deck in a direction substantially perpendicular to a longitudinal direction said aircraft (Fig. 6 is looking at the deck in a transverse direction), wherein each of said plurality of elongate profile elements is connected to each of said plurality of transverse support elements (at intersections throughout floor plates 12).

Art Unit: 3644

9. Further regarding independent **claims 16 and 24**, Bergholz discloses wherein said substantially planar upper surface of each of said plurality of transverse support elements abuts a major face (as shown in Fig. 6) of each of said plurality of substantially planar floor elements and a bottom portion of each of said plurality of elongate profile elements.
10. Regarding dependant **claims 19 and 22**, Bergholz discloses the elongate profile elements having walls (31 and 33 split at the top to form side walls) and said plurality of functional units (34 and 35) are provided between the walls (See Figs. 4a and 4b).
11. In regard to **claims 3-5**, Bergholz discloses intermediate elements (24+46 +20; or 17+43+21) are attached to said outer skin between said ribs (23 and 25) for transmitting longitudinal forces to ribs (24), which connect to the aircraft skin (16).
12. In regard to **claims 6-10**, Bergholz discloses transverse beams (42) and modules (see Fig. 12a), the end sections of the transverse beams (42) transmitting forces to the aircraft skin by way of two intermediate elements (47, 30) at end corners of the deck sections (12).
13. In regard to **claim 11**, Bergholz discloses supporting feet (15) for attaching to ribs (22).
14. In regard to **claims 12-15**, Bergholz discloses attaching the deck sections to longitudinal beams (24) for transmitting longitudinal forces for the side edges (33) of deck sections (12); the longitudinal beams being attached to the aircraft ribs (22); the deck sections being attached within the aircraft via rapid-closure elements (column 6, lines 47-51).

Allowable Subject Matter

15. Claim 23 is allowed.

16. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not anticipate or render obvious the attachment of a deck section for a cargo compartment of an aircraft at only one longitudinal end of at least one of a plurality of deck sections.

Response to Arguments

17. Applicant's arguments filed 08/05/2010 have been fully considered but they are not persuasive. Applicant states that the Bergholz reference does not teach each intermediate element being planar and having a long axis parallel to the long axis of said aircraft." Bergholz teaches the use of a plurality of elements which are both planar and extend in a longitudinal direction of the aircraft. For instance, the stringers 24 have at least a planar portions which protrudes inwardly from the skin of the aircraft as shown in the cross sectional view of Fig. 4. Additionally, Elements 46 and 43 are planar elements which extend in the longitudinal direction of the aircraft. Applicant further states that "Claim 1 does not employ rods". The examiner agrees with this statement however it is not seen to be commensurate with the scope of the claims since the claims do not exclude the use of rods, or additional elements, as being part of the intermediate elements.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian M. O'Hara whose telephone number is (571)270-5224. The examiner can normally be reached on Monday thru Friday 10am - 5pm except the first Friday of every Bi-week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy D. Collins can be reached on (571)272-6886. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy D. Collins/
Supervisory Patent Examiner, Art
Unit 3644

/B. M. O./
Examiner, Art Unit 3644

Application/Control Number: 10/565,081
Art Unit: 3644

Page 9